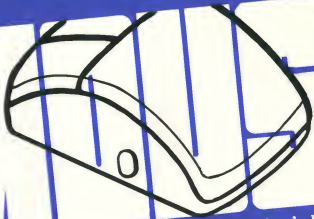


# MIDE



User's Manual

## FCC Information

### Federal Communications Commission Radio Frequency Interference Statement

1 This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: 1) this device may not cause harmful interference, and 2) this device must accept any interference received, including interference that may cause undesired operation.

2. This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, interference with radio and television may occur.

This equipment has been tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J of the FCC rules. These rules are designed to provide reasonable protection against such interference in a residential installation. However there is no guarantee that interference will not occur in a particular installation.

You can determine if this equipment does cause interference to radio or television reception by turning the equipment on and off. If interference is present you can try to correct it by using one or more of the following measures:

- relocate the receiving antenna
- relocate the device in respect to the receiver
- move the device away from the receiver
- plug the device into an outlet so that the device and the receiver are on different branch circuits (i.e., on circuits controlled by different circuit breakers or fuses).

If necessary, you should contact your dealer or an experienced radio/television technician for additional suggestions. You may find the following booklet prepared by the Federal Communications Commission helpful:

"How to Identify and Resolve Radio-TV Interference Problems"

This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock No. 004-000-00346-4

## Mouse User's Guide

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## **Section One: Introducing Your Mouse**

### **Introduction**

This manual will tell you how to install and use your Mouse. First, let's take a look at what comes in the package and make sure it's all there. Here's what you should have:

AM-24

- Mouse
- Driver & Menumaker software disk
- This User's Manual

## Mouse User's Guide

Take a moment and check that your package is complete. If anything is missing check with your dealer. The Mouse package has a number of powerful features that improve its ease-of-use and functionality:

### The Hardware:

- Ergonomic Design
- Manually Activated Dynamic Resolution
- Bi-modal Operation

### The Software:

- Reloadable & Switchable Driver Software
- Driver Help Screen
- Menumaker Software
- Pop-up Menu Library

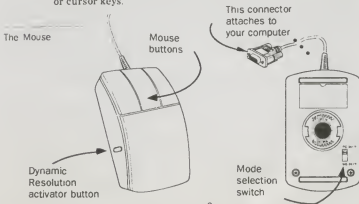
The Menumaker software has a documentation file on disk that tells you how to use the software. You can print this out for your refer if you like.

The figure at right shows the Mouse hardware and points out the important features.

## Section One: Introducing Your Mouse

### The Mouse Concept

Your Mouse is a pointing device that allows you to move your computer's cursor (or "pointer") around on the screen to select and control program functions. In many cases it can act as a substitute for the keyboard and in some cases does things you can't do, or can't do efficiently with typed commands or cursor keys.





## Mouse User's Guide

Some programs are now designed specifically to use a mouse and there are even some that you must have a mouse to use. Other programs do not support the use of a mouse, but can still use the Mouse in combination with one of the special menus supplied on the Mouse software disk. We'll talk about what this software does in Section III later in the manual.

You can see from the checklist above that your Mouse also comes with a kind of software called a "driver". This software is required for your computer to recognize the presence of the mouse and accept instructions from it.

### Mouse Standards

The Mouse is compatible with the two hardware/software mouse standards commonly in use:

- The Microsoft Serial Mouse
- The Mouse Systems (PC) Mouse

## Section One: Introducing Your Mouse

The Mouse driver supports both of these modes and you can switch between the two hardware modes using the mode switch on the underside of the mouse. Most software can use either mode. There is however a physical difference between the two. The Microsoft standard supports the use of two buttons while the Mouse Systems Mouse supports three. Your Mouse can operate as either type. We'll look at this subject in more detail in Section III.

### How Software Packages Use A Mouse

There are three ways in which software packages use a mouse:

1) Some programs require that you first load the mouse driver software into your computer's system memory. After you do this you can call up the program and the mouse will work. Some examples of programs like this are:

- PC Paintbrush
- Microsoft Word
- PC Tools

## Mouse User's Guide

2) Other programs have a built-in driver and can communicate with the Mouse directly. With these programs you don't need to load the Mouse driver for the program to work. This kind of program usually will ask you to select a mouse type during the program's installation procedure. As we've already noted, the Mouse is compatible the two standards mentioned and either one will work. Examples of this type of program are:

- Ventura Publisher
- Microsoft Excel
- AutoCAD

3) Many programs, especially older versions do not directly support the use of a mouse at all. These programs are designed to use keyboard commands only. You can still use your Mouse with many of them by using the pop-up menus supplied on your Mouse software disk. Some of the programs supported are:

- Multimate
- Lotus 1-2-3
- Wordstar

As you can see, you'll be able to use your Mouse with almost any program you want. Now let's go on to the next section which explains how to install your mouse hardware and software.

## **Section Two: Installing Your Mouse**

### **How To Install Your Mouse**

In this section we'll cover what you need to do to get your Mouse ready to use. There are two things you need to do to install your Mouse:

- 1) Connect the hardware
- 2) Install the software

### **Connecting The Hardware**

In order to connect the Mouse to your computer you will need a minimum hardware configuration including:

- An IBM PC or compatible with:
  - 2 Floppy drives or  
1 Floppy and 1 Hard drive
  - 256K of system memory
  - An RS-232 serial port

The Mouse software will support any video display adapter up to VGA resolution.

## Mouse User's Guide

Your Mouse connects to an RS-232 serial port. This port is generally located at the rear of your system case. Check your system manual or I/O card manual for information about your specific hardware. Serial ports can have either 9 or 25 pins. The Mouse connector has 9 pins or 25 pins at customer's option .

Your computer may have more than one serial port. Serial ports are given a name to identify them. The convention is to number them as COM1, COM2, etc. You can connect the Mouse to either COM1 or COM2.

Let's look at the mouse connector for a moment:

Mouse cable  
connector adapter

The 9-pin connector is  
attached to the mouse



This is the 25-pin  
adapter



If you want to connect to a  
25-pin serial port use the  
adapter

## Section Two: Installing Your Mouse

To connect your mouse follow these instructions:

1) Turn your computer OFF.

2) Locate the serial port you want to use.

3) If the port has 9 pins, plug the connector into the port and screw the connector down. If the port has 25 pins connect the adapter first.

4) Set the hardware mode switch on the underside of the mouse to the Mouse Systems compatible mode "PC-3Key". The mouse must be set this way in order to use the test program described later.

Many computers have a serial port installed in an expansion slot.



That's it. After you connect the mouse, place it beside your keyboard within easy reach. Make sure the surface is smooth and clean. If you have a mouse pad, it's a good idea to use it.

Position the pad beside your keyboard. With the average monitor you don't need a space larger than the pad to move the cursor around the screen.

## Mouse User's Guide

### Installing The Software

In this section you'll install the software required for your mouse to operate. The Mouse software also includes the menu software and files mentioned earlier. Refer to the on-disk manual for information about these.

To keep things simple we'll assume that you are already familiar with your computer hardware and operating system basics. We'll also assume you're using MS-DOS. If you're using another operating system, you might need to refer to its instruction manual.

### Basic Installation

Follow these directions to install the Mouse driver on your system disk. It doesn't matter whether your system disk is a hard or floppy disk.

- 1) Turn on your computer.

- 2) MAKE A BACKUP OF YOUR MOUSE MASTER DISK AND USE IT TO INSTALL THE SOFTWARE, NOT THE MASTER DISK.

If you don't know how to do this check your operating system manual. Do it first, don't put it off, and you won't have cause for regret later.

## Section Two: Installing Your Mouse

3) After your computer boots up, put the Mouse disk in drive "A:" ; switch to drive "A:" if necessary.

4) Copy the AMOUSE.COM file to your system disk. For example, if you have a hard disk, at the A: prompt type:

```
COPY AMOUSE.COM C:
```

This will copy the Mouse driver to the root directory of your hard disk

At this point the mouse is connected, the driver is installed on your system disk, and you're ready to test the setup and make sure everything is working.



## Mouse User's Guide

### Loading The Mouse Driver

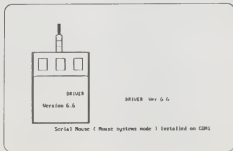
Before you can see if the installation is successful you'll need to load the Mouse driver. The basic procedure is simple:

1) Type:

AMOUSE<return>

2) The following screen will appear:

Mouse installed  
mouse driver  
screen



## Section Two: Installing Your Mouse

This screen shows which version of the Mouse driver you're using. It also tells you which serial port the mouse is attached to and what hardware mode the mouse is set for.

When you call up the mouse driver in this way, the software will automatically detect which serial port you have the mouse attached to. This is all you need to do to complete the basic procedure for loading the driver. And that's about as far as most mouse packages go.

We have added a driver Help screen that lets you take advantage of the driver's versatility. Let's take a look at it. If you prefer, you can skip the next section for the moment and go test your installation first. If that's what you want to do, go directly to the part on "Testing The Installation", but come back here later and read about the Help screen. It is your access to one of the Mouse's most powerful features.

## Mouse User's Guide

### The Driver Help Screen

The Mouse driver is designed so that you can customize it to your requirements. You do this by using "switches" that you type after the AMOUSE command at the DOS command line. Switches are parameters that you can define when you execute a program or function. You are probably already familiar with some of the ones DOS uses, for example, when you type:

DIR/W

the "/W" is a switch to display the contents of your current directory in one screen.

You can use a number of switches to tailor the driver to your needs. After you load the driver you can call up the Help screen to check the driver settings and see a listing of the possible switches. Type:

AMOUSE/?

at the command line to bring up the Help screen. It looks like this:

## Section Two: Installing Your Mouse

Mouse driver  
Help screen

Mouse Use & Copyright (C) 1989				
Type	Optional Select Parameter			
RS232 PORT	1	COM1	2	COM2
Hand Type	R	Normal	L	Left Hand
Mouse Type	M	MOUSE	A	Microsoft Mouse
	P	Mouse type	Z	PS/2 MOUSE
Baud Rate	512	1700	324	2400
	544	4800	576	9600
Report Rate	R10	R20	R30	R50
				R70 R100 R150
Mouse Speed	U0	U1	U2	U3
				U4 U5 U6 U7 U8 U9
Other	T	Get help and current status		

The Help screen serves two purposes. It is a list of all the switches you can use with the AMOUSE driver. It also shows you what the current driver settings are if you call up Help after you load the driver. The screen above shows the default settings the driver uses if you don't specify any switches. The current settings are highlighted as shown. If you want to change the default setting you must do it every time the driver is loaded.

## Mouse User's Guide

The switches are shown with their meaning after the switch, for example, in the RS232 PORT line:

1. . . . . COM1:

the "1" is the switch. It would be type "/1" after AMOUSE, e.g.:

AMOUSE/1

and tells the driver to use the COM1 serial port. You can use four of the six categories of switches shown on the screen:

### RS—232 PORT

These tell the driver which serial port to use.

### Hand Type

These select the assignment of the three buttons on the mouse. You can reverse the assignment of the buttons if you are left-handed. Normally the left button is the primary active button. The "Left Hand" switch will assign the RIGHT button as the primary button.

## Section Two: Installing Your Mouse

### Mouse Type

Only two of the four settings listed can be used with this model of the Mouse:

- Mouse system: this corresponds to the "PC-3KEY" setting of the hardware mode switch.
- Microsoft Mouse: this corresponds to the "MS-2KEY" hardware setting.

You don't need to set this the first time you load the driver because it is automatically detected. The advantage comes after you've loaded the driver and you want to switch modes without having to reboot. We'll see how to do that at the end of this section.

## Mouse User's Guide

### Report Rate

The Report Rate sets the tracking resolution of the mouse. The range is from R10 to R150. The R stands for Resolution. The measurement is in dots-per-inch (dpi). To fit the range on the screen the last zero of each number was dropped. The actual range is:

R10: 100 dpi	R70: 700 dpi
R20: 200 dpi	R100: 1000 dpi
R35: 350 dpi	R150: 1500 dpi
R50: 500 dpi	

The default setting is R20 or 200 dpi.

So what does all this mean in practical terms? These settings control the relationship between how much you move the mouse and how much the cursor (or "pointer") moves on the screen. It works this way.

## Section Two: Installing Your Mouse

- The lower you set the resolution the more you have to move the mouse to get around the screen.
- The higher the setting the more movement you will see on the screen for a given amount of mouse movement.

### Slowing Down The Mouse

So why would you want to change the default setting? There are several possibilities. In some programs you might want more fine control over the pointer's movement. Drawing and painting programs are good candidates for this. The default setting is fine, but you can get even more control by using R10.

### And Speeding It Up

On the other hand, in some programs you may be more interested in getting around the screen quickly and not want to have to move the mouse a lot to do it. A good example of this would be a spreadsheet like Microsoft Excel where the main requirement is to select commands or define areas, not draw in detail. Try various settings to see what works for you.



## Mouse User's Guide

### How To Do It

In either case the procedure is the same. When you load the AMOUSE.COM driver you must include the "switch" that makes the setting for you. Let's say you want to set the resolution at 500 dpi. We'll assume you've installed the mouse driver on your system disk. This is how to do it:

1) Turn on your computer.

2) After it boots, type:

AMOUSE/R50

The screen indicating the driver has loaded will pop-up. There won't be any indication on the screen that you've changed the default. If you want to double check you can type:

AMOUSE/?

to pop up the help screen and check that the Report Rate is now set on R50.

## Section Two: Installing Your Mouse

### Baud Rate & Voice Speed

These are fixed and should not be changed. These have no optional settings for this model of the Mouse.

That's all for the Help screen. Once you decide which switches you want to use you can load the mouse driver and test the entire installation as described next. Remember, you don't have to use any switches for your mouse to work.

## Mouse User's Guide

### Testing The Installation

On your Mouse software disk there is a program to test your mouse installation and make sure everything is working. The program is called "UTEST". To use it let's pick up where we just left off — the Mouse disk is in drive A: and you've just installed the driver in the Mouse Systems mode. Now do as follows:

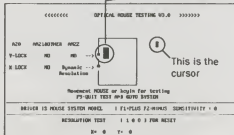
- 1) Type:

UTEST<return>

- 2) The following screen will appear:

Press a mouse button and the button will light up on the screen

UTEST  
program screen



## Section Two: Installing Your Mouse

The UTEST program is used for several Mouse models. Your model is the AM-24. The screen points out that the side button is for the Dynamic Resolution feature.

UTEST has sound effects. Don't be alarmed if your computer makes sounds during the test.

3) A big rectangular test cursor should appear on the screen. Move the mouse around; the cursor should move too. Your computer should make a twittering sound when you move the mouse. This is an audible test that coincides with the test cursor's movement on the screen.

4) Press the mouse buttons. A rectangle should light up inside the box representing the mouse to show which button you're pushing. Your computer should beep, once when you press a button down, and again when you release it.

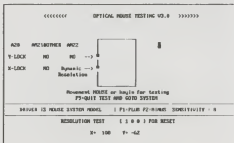
5) You'll note that in the middle of the screen there is a "SENSITIVITY" setting. The F1 and F2 keys let you adjust the tracking sensitivity level up and down. The default setting is "8".

## Mouse User's Guide

### Experimenting With The Tracking Sensitivity

In the previous section we discussed how to set the dots-per-inch resolution of your Mouse and what effect doing that has. This feature of the UTEST program let's you play with the mouse sensitivity in similar way to get a feeling for how this works. Although the measurements used are different, you can still get a sense of how different resolutions feel, and you don't have to load the driver repeatedly to do it. You use the "SENSITIVITY" adjustment in the UTEST program to do this. Let's look at the UTEST screen again:

UTEST  
program screen



## Section Two: Installing Your Mouse

The tracking sensitivity is measured as a whole number. The default setting is eight. You change the setting by pressing either the F1 key to go up or the F2 key to go down.

Simply put, this feature controls how much distance the cursor will move when you move the mouse a given distance. It works this way:

- The higher the sensitivity level is set, the less cursor movement there will be on the screen for any set amount of mouse movement.
- The lower the sensitivity level is set, the more cursor movement there will be.

This feature in the UTEST program is so that you can interactively use it. This is how you do it:

- 1) Move the mouse around while the sensitivity level is set at the default "8" setting.
- 2) Use the F1 or F2 key to change the sensitivity level. To see what the effect is more dramatically, make the setting significantly different than the default, say 4 or 12.
- 3) Move the mouse again in the same range of motion you used in No.1 above. You should be able to see a difference in the distance the cursor moves.

## Mouse User's Guide

You should note that the way the SENSITIVITY feature alters the mouse's on screen movement is the opposite of the AMOUSE driver resolution setting. That is, the lower the number the more, rather than less movement there is and vice versa. Also, remember that SENSITIVITY is just for experimentation. It doesn't change the driver setup.

When you're done moving around and beeping the buttons you can exit UTEST by pressing the F9 key. Assuming you didn't encounter a problem during the test you're all set to start using your Mouse.

## Section Two: Installing Your Mouse

### What If There's A Problem?

But what if everything didn't go alright during the test? Don't worry. If you encounter a problem at this point the solution should be simple. Generally any problem can be traced to a loose connection or something you forgot to do. Here's a list of everything you have to do so that the mouse will work:

- Set the hardware mode switch on the underside of the mouse to "PC-3KEY"
- Make sure your computer has a functioning serial port. You must use either COM1 or COM2.
- Plug the mouse cable connector into the port. Use the adapter supplied if necessary. Screw the connector down snugly.
- Turn on your computer and copy the AMOUSE.COM driver to the root level of your system disk.
- Type AMOUSE at the DOS command line. The driver-loaded screen should appear and tell you the mouse is installed on the COM1 serial port (or COM2 if you selected it).



## Mouse User's Guide

If the mouse doesn't work properly when you run UTEST, go through the above procedure again and make sure you did everything. When you're done, run UTEST again. If you still have a problem, its not impossible, though not very likely, that some part of your package, either hardware or software, is defective.

### Still Doesn't Work?

If you've been able to use the software from the Mouse disk, the disk is probably not the problem, though you can examine it with a utility program such as the Norton Disk Doctor to see if there is anything wrong.

If there is a problem with the mouse hardware you'll need to consult with your dealer to get a replacement.

## Section Two: Installing Your Mouse

### Autoloading The AMOUSE.COM Driver

Up until this point we've only discussed the basic AMOUSE.COM driver installation. With the basic installation, you have to manually load the driver software when you want to use the mouse.

The driver can load automatically when you turn on your computer. You can use the batch file feature of DOS to create an AUTOEXEC.BAT file. This file tells your computer to load the driver at start-up. There are of course many other things that can be added to an AUTOEXEC.BAT file.

If you're not familiar with this feature of DOS refer to your DOS manual to see how it works and what the rules are governing it. You can use any text editor or word processor that can save plain unformatted (ASCII) text to write a batch file.

You may already have an AUTOEXEC.BAT file on your system disk. If you do, you can add a line to it. In either case the line should be:

AMOUSE

## Mouse User's Guide

If you want to use any of the switches described earlier in this section you should add them on to the line, for example:

AMOUSE/L

The "/L" switch will reassign the mouse buttons for a left-handed user.

When you're done you should save the file with the name AUTOEXEC.BAT. This file should have at least the one line in it that loads the AMOUSE.COM driver.

At this point your Mouse should be installed the way you want it and we should be ready to go on. The next section explains various aspects of using your Mouse to its best effect.

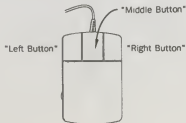
## Section Three: Using Your Mouse

### How To Use Your Mouse

Now that you've got your mouse installed let's review some information on the hardware and how to use it. The Mouse uses a combination of hardware and software features to give you extra flexibility and personalization. Let's take another look at some of the hardware features of your mouse.

Your Mouse has three "buttons" that you push down on and release to send a command to your computer. Which of these buttons you use and in what combination depends on the mouse mode and software you use. There are some general techniques for using a mouse regardless of these. We'll discuss them a little later in this section.

Mouse top view



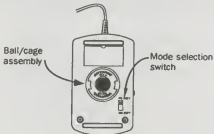
## Mouse User's Guide

There is a rubber-covered ball located in a housing, or "cage", on the underside of the mouse. When you move the mouse across a pad or other clean, smooth surface, this ball rotates. Via an opto-mechanical mechanism in the mouse this movement is converted into information your computer can interpret and display on the screen.

The ball is retained in the cage by a removable donut-shaped disk. Occasionally dust and dirt may build up inside the cage and impair the ball's rotation. If this happens you will need to clean the cage and ball. There is an explanation of how to do this in the next section on Maintenance and Technical Information.

---

Mouse mode  
selector &  
ball/cage  
assembly



## Section Three: Using Your Mouse

### Two And Three Button Mice

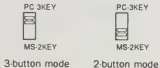
The Mouse has three buttons. The two mouse standards we've already discussed vary at the functional level only in the number of buttons used. One uses two and the other three. Your Mouse can function in either mode. If the software you are using requires the two button standard two of the buttons will have the same effect. Which two will depend on the software, but will always include the center button.

### Mode Selection

As we mentioned earlier, there is a hardware switch on the underside of the mouse to select between two and three button mode (MS-2KEY or PC-3KEY). You should set this before you load the AMOUSE.COM driver. Remember that the UTEST program only works with the PC-3KEY mode.

---

Mouse 2/3 button  
mode selection



## Mouse User's Guide

### Special Setups

As we mentioned in Section Two, there are a number of ways you can customize the AMOUSE.COM mouse driver to suit your needs. Here's a list of them again for reference. You can refer to Section Two for a detailed explanation. You have to be in the same directory as the AMOUSE.COM driver (probably the Root Directory) for the commands listed below to work:

#### Left-handed Operation:

You can reverse the assignment of the buttons so that functions normally assigned to the left button are assigned to the right and vice versa. At the DOS command line type <AMOUSE/L>. You can switch back by typing <AMOUSE/N>.

#### Resolution Change:

The default resolution of your Mouse is 216 dots-per-inch (dpi). You can change this to any of a range of settings:

## Section Three: Using Your Mouse

R10: 100 dpi

R70: 700 dpi

R20: 200 dpi

R100: 1000 dpi

R35: 350 dpi

R150: 1500 dpi

R50: 500 dpi

At the DOS command line type <AMOUSE/ Rxxx> (xxx=number).

### Changing Mode During A Session:

If you need to switch from one mode to another while you are working you don't have to reboot. Exit to DOS, switch the mode switch on the mouse, and at the DOS command line type <AMOUSE/M> for two-button or <AMOUSE/P> for three-button operation.

Remember that you can always call up the Help screen to see all the possible switches and what your current driver configuration is. Just type <AMOUSE/?> at the command line.



## Mouse User's Guide

### General Mouse Techniques

Okay, so here I am and my Mouse is set up and ready to go. So now what do I do? Just move the thing around right? Well, there's a bit more to it than that, but not a lot. Most programs use a basic set of mouse techniques which we'll review here.

First let's take a brief look at how to handle the mouse. You can experiment to find the most comfortable position to hold and use it. Keep in mind some basic ideas to get maximum use with minimum fatigue:

- Place the mouse within easy reach. Don't stretch your arm out any more than necessary.
- Just as with your keyboard, try to put the mouse at a level that allows you to hold your arm and wrist at a comfortable and natural angle.
- Hold the mouse lightly and try to avoid gripping it tightly or pressing heavily on the keys. You won't damage the mouse if you do, but you will tire your hand much more quickly. Most people find an angle something like that shown in this figure to be about right:

## Section Three: Using Your Mouse

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Mouse holding  
the mouse



- Its best to use the mouse with a pad designed for it. The pad let's the mouse slide freely and provides an easily cleaned surface. It can also provide some cushioning for your wrist.

## Mouse User's Guide

There is a relatively standard terminology used by most software manuals to describe these. Though the name may vary, the techniques are the same. These are:

- Point
- Click
- Press
- Double-click
- Release
- Chord
- Drag

### Point

In many programs the cursor (or pointer) is in the form of an arrow or similar shape. To point you move the pointer to the position on the screen where you want to do something.

### Press

Press means pushing down on a button and holding it there.

## Section Three: Using Your Mouse

### Release

Letting up on a pressed button, often after taking some intermediate action.

### Drag

To press a button then move the mouse.

### Click

To press and immediately release a button.

### Double-click

To rapidly click a button twice.

### Chord

To press and release more than one button at the same time.

Check the documentation of the software you want to use to see how your packages use a mouse. Almost all packages will use some or all of the techniques noted above. There may also be combinations of techniques that are unique to a particular package. Many packages have a variety of pointer shapes that change depending on which functions you use.

## Mouse User's Guide

### Dynamic Resolution

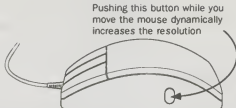
Your Mouse has another feature that gives you added flexibility especially while using programs that make heavy use of the mouse. We've already discussed how you can change the default resolution of 200 dpi by using a "switch" when you load the AMOUSE.COM driver. You can change the working resolution anytime you want by reloading the driver with a different switch. To do that you have to exit from your program to DOS.

But let's say there's a program where you want both fine control and the ability to quickly move a large distance. The Image 72 software that is part of the AM-22 Mouse package is a good example of this. When you use paint software you often want to control the mouse very precisely. At the same time you often need to move the pointer all the way across the screen to select another tool or function.

In normal circumstances you have to settle for one resolution or another. The Dynamic Resolution feature lets you have both. The feature is activated by a button on the left side of the mouse.

## Section Three: Using Your Mouse

Mouse Dynamic  
Resolution  
activator



While you press the activator button, the faster you move the mouse the more distance the pointer will cover. This means that you can set the driver at a low resolution and still move across the screen with a minimum of mouse movement. Here's an example:

- 1) Load the driver for the lowest resolution by typing:

`AMOUSE/R10`

- 2) Run any program you have that doesn't use its own internal driver. Image 72 will work fine for this if you have it.

- 3) Move the pointer around on the screen to get a feeling for how much response you get to your hand movement.

## Mouse User's Guide

4) Press the Dynamic Resolution activator and do the same thing again. You'll see a big difference, especially if you move the mouse quickly.

5) Release the activator button and the response will revert to the low resolution setting you loaded the driver with.

### Pop-Up Menu Library

Don't forget that you can use your Mouse with any of the library of pop-up menus supplied for programs that don't support a mouse. You can even produce your own menus using the Menumaker software. A manual for the library and software is included on your Mouse software disk. You can print it out for reference if you like.

We've now gone about as far as we can without getting into the details of how specific software packages use a mouse. From here you can go on to your software manuals for additional information. The next and last section of this manual explains how to maintain your Mouse and also includes some technical information.

## **Section Four: Maintenance & Technical Information**

### **Maintenance And Technical Information**

In this section we'll discuss how to maintain your Mouse and list some technical specifications of the hardware.

#### **Maintenance**

There isn't very much you need to do to maintain your mouse. In general its operation should be trouble-free and the most you should need to do is keep it clean. There are two things you can do to clean your mouse:

- Clean the exterior
- Clean the ball and cage assembly

As with all computer equipment, you should try to keep dust in your work area to a minimum. The proper cleaning procedures are described below.



## Mouse User's Guide

Make sure you observe the following precautions at all times:

- 1) Switch your computer off and disconnect the mouse.
- 2) Never pour water or any other liquid directly on any part.
- 3) Never use any abrasives, volatile liquids (e.g. alcohol, paint thinner, gasoline), or wax.
- 4) When you're done, check that all parts are completely dry before you reconnect the mouse and switch on the computer.

You can use these cleaning materials:

1. A soft non-abrasive lint-free cloth.
2. Water.
3. If necessary, light-duty household detergent or soap for the exterior and alcohol or computer cleaning fluid for the interior rollers.

## **Section Four: Maintenance & Technical Information**

### **Cleaning The Exterior**

Follow this procedure:

- 1) Switch your computer off and disconnect the mouse.
- 2) Wet the soft non-abrasive cloth or sponge with water and wring it out so that it is only damp.
- 3) Wipe off the exterior of the mouse and cable.
- 4) Let the mouse and cable dry off before you reconnect the mouse.

### **Cleaning The Ball And Cage**

Earlier in the manual we noted that over time, as you use the mouse, dust and dirt can accumulate inside the ball cage and on the ball itself. When this happens you'll need to clean the assembly and ball.

Accumulated dust in the ball cage can interfere with the ball's and/or the roller's movement. If the on-screen pointer responds sluggishly or does not move at all, this is probably a sign that the assembly is dirty.

**Note:** You should never pour water or any other liquid directly into the ball/cage assembly.

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### Cleaning Procedure:

1) Switch your computer off and disconnect the mouse.

2) Place the mouse upside down with the bottom facing you.

3) Rotate the disc counterclockwise, in the direction indicated by the arrows on the disc and remove it.

4) Place the palm of one hand over the underside of the mouse and turn the mouse right side up. As you do, the ball should both drop into the palm of your hand.



Mouse cleaning the ball and cage

3  
Turn the mouse over and drop the ball out into a cleaning cloth

## Section Four: Maintenance & Technical Information

5) To clean the BALL, use running water and, if necessary, detergent (or soap) with a lint-free cloth (or sponge). Dry the ball after cleaning with another lint-free cloth.

6) To clean the ball CAGE, use a dry, lint-free cloth to gently wipe away any dust and lint. Blowing air into the cage may also be of use.

Some dirt or lint may be stuck to the rollers inside the cage. If it is, use a cotton swab moistened with alcohol to rub the deposits off the rollers.

7) Place the dry ball in the clean cage. Fit the ballretainer disc back into place, and turn the disc clockwise to lock it into position.

That's all the maintenance you can perform yourself on your Mouse. In the unlikely event you experience more serious problems you should consult your dealer for possible remedies.

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### Technical Specifications

Following is some information about how the Mouse 9-pin or 25-pin cable connectors are wired. You can use this information if you need to confirm that your computer hardware is compatible with the hardware. These are standard components. You should encounter no problems using the hardware if your computer follows standard design.

The Mouse uses five of the nine pins on a standard female RS-232C connector to interface with your computer. The connector is a standard 9-pin D-shell connector. The Mouse is wired as shown below:

Pin	Function
2	RD: Received Data
3	TD: Transmitted Data
4	DTR
5	GND: Ground (Earth)
7	RTS: Reset Source

## Section Four: Maintenance & Technical Information

The 9 to 25 pin adapter is wired as follows:

9-pin	25-pin	Function
2	3	RD: Received Data
3	2	TD: Transmitted Data
4	20	DTR
5	7	GND: Ground (Earth)
7	4	RTS: Reset Source

Mouse cable  
connector &  
adapter pin-outs

①

These numbers  
indicate the pin  
number  
assignments



25-pin female  
(adapter)



9-pin male  
(adapter)



9-pin female  
(connector)

## Mouse User's Guide

